

AMENDMENTS TO THE CLAIMS

1 1. (Currently Amended) A method for performing operations in an electronic file system,
2 the method comprising the steps of:
3 receiving a command to perform one or more file system operations;
4 in response to said command, performing a plurality of operations including said one
5 or more file system operations;
6 wherein the step of performing the plurality of operations includes:
7 performing a first subset of said plurality of operations as part of a first
8 transaction; and
9 performing a second subset of said plurality of operations as part of a second
10 transaction that is nested in said first transaction,
11 wherein each of said one or more file system operations is included in at least
12 one of the first subset of said plurality of operations and the second
13 subset of said plurality of operations.

1 2. (Original) The method of Claim 1 wherein the step of performing the
2 plurality of operations further includes the step of performing a third
3 subset of said plurality of operations as part of a third transaction that is
4 nested in said second transaction.

1 3. (Original) The method of Claim 1 wherein the second subset of operations are
2 operations that are triggered by an operation that belongs to said first subset of
3 operations.

1 4. (Original) The method of Claim 1 wherein:

2 the step of receiving the command is performed by an entity that resides external to a
3 database server; and
4 the step of performing said plurality of operations includes said entity sending
5 database commands to said database server.

1 5. (Original) The method of Claim 4 wherein the step of performing said second subset
2 includes:

3 the entity sending to the database server a savepoint command for the database server
4 to establish a savepoint; and
5 after the entity sends to the database server a savepoint command, the entity sending
6 to the database server commands for performing said second subset of said
7 plurality of operations.

1 6. (Original) The method of Claim 5 further comprising the entity responding to a failure
2 of an operation in said second subset by sending to the database server a command to
3 roll back to said savepoint.

1 7. (Original) The method of Claim 4 further comprising the entity maintaining a
2 transaction list by performing the steps of:
3 adding an entry to the tail of the transaction list when the entity sends a savepoint
4 command to the database server to start a nested transaction; and
5 when an operation fails, determining the savepoint to roll back to based on the entry
6 at the tail of the transaction list; and
7 removing the entry from the tail of the transaction list when the nested transaction
8 fails or completes successfully.

- 1 8. (Original) The method of Claim 3 wherein:
 - 2 the one or more file system operations include an operation on a folder; and
 - 3 the second subset of operations includes operations associated with one or more
 - 4 documents within the folder.
- 1 9. (Original) The method of Claim 4 further comprising the steps of:
 - 2 the entity determining whether all operations that are to be performed as a nested
 - 3 transaction are read only;
 - 4 if all operations that are to be performed as the nested transaction are read only, then
 - 5 sending commands to perform the operations without first sending a command
 - 6 to establish a savepoint; and
 - 7 if all operations that are to be performed as the nested transaction are not read only,
 - 8 then sending a command to establish a savepoint prior to sending commands
 - 9 to perform the operations.
- 1 10. (Currently Amended) A computer-readable medium carrying instructions for
 - 2 performing operations in an electronic file system, the computer-readable medium
 - 3 comprising instructions for performing the steps of:
 - 4 receiving a command to perform one or more file system operations;
 - 5 in response to said command, performing a plurality of operations including said one
 - 6 or more file system operations;
 - 7 wherein the step of performing the plurality of operations includes:
 - 8 performing a first subset of said plurality of operations as part of a first
 - 9 transaction; and

10 performing a second subset of said plurality of operations as part of a second
11 transaction that is nested in said first transaction,
12 wherein each of said one or more file system operations is included in at least
13 one of the first subset of said plurality of operations and the second
14 subset of said plurality of operations.

- 1 11. (Original) The computer-readable medium of Claim 10 wherein the step
2 of performing the plurality of operations further includes the step of
3 performing a third subset of said plurality of operations as part of a third
4 transaction that is nested in said second transaction.
- 1 12. (Original) The computer-readable medium of Claim 10 wherein the second subset of
2 operations are operations that are triggered by an operation that belongs to said first
3 subset of operations.
- 1 13. (Original) The computer-readable medium of Claim 10 wherein:
2 the step of receiving the command is performed by an entity that resides external to a
3 database server; and
4 the step of performing said plurality of operations includes said entity sending
5 database commands to said database server.
- 1 14. (Original) The computer-readable medium of Claim 13 wherein the step of
2 performing said second subset includes:
3 the entity sending to the database server a savepoint command for the database server
4 to establish a savepoint; and

5 after the entity sends to the database server a savepoint command, the entity sending
6 to the database server commands for performing said second subset of said
7 plurality of operations.

1 15. (Original) The computer-readable medium of Claim 14 wherein the entity responds to
2 a failure of an operation in said second subset by sending to the database server a
3 command to roll back to said savepoint.

1 16. (Original) The computer-readable medium of Claim 13 further comprising
2 instructions for causing the entity to maintain a transaction list by performing the
3 steps of:
4 adding an entry to the tail of the transaction list when the entity sends a savepoint
5 command to the database server to start a nested transaction; and
6 when an operation fails, determining the savepoint to roll back to based on the entry
7 at the tail of the transaction list; and
8 removing the entry from the tail of the transaction list when the nested transaction
9 fails or completes successfully.

1 17. (Original) The computer-readable medium of Claim 12 wherein:
2 the one or more file system operations include an operation on a folder; and
3 the second subset of operations includes operations associated with one or more
4 documents within the folder.

1 18. (Original) The computer-readable medium of Claim 13 further comprising
2 instructions for performing the steps of:

3 the entity determining whether all operations that are to be performed as a nested
4 transaction are read only;
5 if all operations that are to be performed as the nested transaction are read only, then
6 sending commands to perform the operations without first sending a command
7 to establish a savepoint; and
8 if all operations that are to be performed as the nested transaction are not read only,
9 then sending a command to establish a savepoint prior to sending commands
10 to perform the operations.